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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/578,746	05/10/2007	Anthonyus Hendricus Maria Vermeulen	522266-0351092 (OCT0019-U)	6766
909 7590 05/18/2010 PILLSBURY WINTHROP SHAW PITTMAN, LLP P.O. BOX 10500 MCLEAN, VA 22102				
EXAMINER MANOHARAN, VIRGINIA				
ART UNIT		PAPER NUMBER		
1797				
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05/18/2010		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary**Application No.**

10/578,746

Applicant(s)VERMEULEN, ANTHONIUS
HENDRICUS MARIA**Examiner**

Virginia Manoharan

Art Unit

1797

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 May 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

The specification has not been checked to the extent necessary to determine the presence of all possible minor errors, e.g., typographical, grammar, idiomatic, syntax and etc. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

This application does not contain an abstract of the disclosure as required by 37 CFR 1.72(b). An abstract on a separate sheet is required. [The abstract in the PCT does not suffice].

The drawings are objected to because of the following reasons:

a). The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the first, second and third heating means must be shown or the feature(s) canceled from the claim(s). No new matter should be entered. Note claims 1, 3-4 and 8-9; and note further page 5, line 11 and page 7, line 35 of the specification indicating that the heating elements as not being shown.

b). The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference characters "2" and "4" have both been used to designate a screw conveyor. Note page 5, line 9 and page 5, line 12 of the specification.

c). The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "5" has been used to designate both an inlet in claim 1, line 2; and a funnel in claim 2, line 2.

[Applicants should further check the specification and /or drawing(s) that different numbers do not refer to the same part; and vice versa, i.e., different parts are not being referred to by the same number]

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

The disclosure is objected to because a reference to a brief description of the drawings is not provided in the specification to comply with 37 CFR 1.74.

Claims 1-16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

a). The term "characterized in that", recited in claims 1-16 is not a recitation of positive structural element of an apparatus nor is it a recitation of positive, manipulative, method/process steps. Also, it is unclear whether the limitation(s) recited prior the "characterized in that" is to be regarded as part of applicants' invention? Applicants should recite claim 1 in Jepson -format (if intended) to delineate that which is an improvement in the art.

b). The phrase "adapted to" recited in the claims, provides for ambiguity and confusion because it is unclear how a device can be adapted to a function. Could it not have performed that function before it was adapted to thus perform? See, for examples claims 3 and 9-10.

Claims 1-16 are objected to because of the following reasons:

- a). Note the inconsistency in the claims which is improper such as: "cooling means (18, 19)" in claim 1, line 7, as opposed to "cooling means (19)" in claim 10, line 2.
- b). Note typographical error such as "vapour", numerously recited in the claims, which should be -vapor—as the latter is the term normally used in the U.S.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-7 and 9-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Navetta (5,569,154) with or without Hammer (6,650,042).

Navetta discloses a method and apparatus for removing mercury from a mercury-contaminated soils comprising a gastight screw conveyor (22) provided with an inlet (12) for mercury-containing residues; first heating means (34) for heating and evaporating the mercury from the mercury-containing residues; an outlet conduit (46) for mercury vapor-containing gas; pump means (66) for applying an underpressure in the screw conveyor (22) and for discharging the mercury vapor-containing gas therefrom; and a distillation column (86) provided with cooling means for condensing the mercury vapor from the mercury vapor-containing gas; and method thereof. See Figs. 1 and 2; and col. 4, lines 51-67 thru cols. 5 -10. The device and method/process of Navetta differ from the claimed invention in that claim 1, for example, recites that "the outlet conduit (7) is provided with second heating means for heating the mercury vapour-containing gas". However said heating means is a known expediency in the art used for its art - recognized function as taught e.g., at col. 3, lines 25-50 of Hammer. To incorporate the heating means of Hammer to the method and apparatus of Navetta, to arrive at the claimed invention, would have been obvious to one of ordinary skill in the art motivated with the reasonable expectation, interalia, of increasing the mercury vapor well above the optimal range such that mercury emission is reduced with the increased temperature results of further heating. See col. 3, at 42-48 of Hammer.

The claimed temperature in claims 3-4 and 9-10 is more a process limitation rather than apparatus to which these claimed are directed. [A process limitation is not the basis for patentability of an apparatus claim]. These claims as well claims 12 and 14-15 directed to temperatures; and claim 13 directed to pressure are deemed to be result- effective variables which ordinarily are within the skilled of the art.

Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Navetta (5,569,154) with or without Hammer (6,650,042) as applied to claims 1-7 and 9-16 above, and further in view of Mussig et al (5,529,605).

The claimed "the pump means (16) are provided with third heating means for heating the mercury vapour- containing gas" in claim 8 is at least suggested e.g., at col. 4, lines 35-39 of Mussig. To incorporate the heating means of Mussig to the method and apparatus of Navetta, to arrive at the claimed invention, would have been obvious to one of ordinary skill in the art since all the references are directed to similar processing environment, i.e., to treating a mercury -containing substance.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

a). Short discloses a mercury vapor heating apparatus.

b). Alkhamis discloses an apparatus wherein the upper portion of the separator tank supplies gas to at least one heater tank,

Any inquiry concerning this communication or earlier communications from the examiner should be directed to V. Manoharan whose telephone number is (571) 272-1450.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Caldarola can be reached on (571) 272-1444.

The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Virginia Manoharan/
Primary Examiner, Art Unit 1797